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REMARKS

Applicants request a copy of Form 1449 indicating the Examiner's consideration of listed references. Form 1449 was submitted with an Information Disclosure Statement on the filing date of the application.

Applicants thank the Examiner for the courtesy of two telephone interviews. The first interview was conducted on August 26, 2004 during which the Examiner, Mr. Carl Tamai of the U.S. Patent and Trademark Office, Mr. Franklin Jones and Applicants' representative, William Guerin, discussed the Office Action with respect to the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a). Proposed replacement claims for pending claims 1 and 3 were discussed with respect to the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) during the second interview between the Examiner and Applicants' representative, William Guerin, on September 3, 2004.

Claims 1-11 were presented for examination. The Office Action rejects claims 1-11. This paper cancels claims 1-3 and 11, amends claims 4, 5, 7, 8 and 10, and adds new claims 12 and 13 to replace canceled claims 1 and 3, respectively. Claims 4-10, 12 and 13 are pending in the application after entry of the amendments herein.

Rejection of Claim 1 under 35 U.S.C. § 102

The Office Action rejects claim 1 under 35 U.S.C. 102(b) as being anticipated by Bowman-Manifold (U.S. Patent No. 2,108,523, hereinafter "Bowman"). Applicants respectfully traverse the rejection to the extent it is maintained against new claim 12. Applicants teach stator coil groups adapted for radial gap electromotive machines. The stator coils nest together to form a stator having a high conductor density without increasing the volume of the generator or motor. Each stator coil is configured to nest with adjacent stator coils. A pair of adjacent stator coils includes one coil having circumferential sections that are disposed at a greater radial distance from a cylindrical axis than the longitudinal sections of the coils and the circumferential section of the other coil. The increased radial distance is

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achieved through a pair of step bends where the longitudinal sections meet the circumferential sections.

The Applicants' invention, as now set forth in new independent claim 12, recites a second coil having longitudinal and circumferential sections disposed at a first and a second radial distance from a cylindrical axis, respectively, such that the second radial distance exceeds the first radial distance. New independent claim 12 also recites a pair of step bends in the second coil where each longitudinal section is adjacent to one of the circumferential sections.

Bowman teaches coils for use in correcting the position of a cathode ray beam in a cathode ray tube. Unlike Applicants' invention, Bowman does not include a pair of step bends at the end of the longitudinal sections. In addition, the ends of the coils as disclosed in Bowman extend substantially normal to the longitudinal sections of the coils hence Bowman does not have circumferential sections disposed at a second radial distance from a cylindrical axis. Moreover, Bowman would not be motivated to include dual step bends because Bowman does not disclose a limitation based on an increase to the radial size of the coil set. Thus Bowman fails to disclose or suggest every claimed limitation of the Applicants' invention as set forth in new independent claims 12 and, therefore, Applicants respectfully submit that the rejection is overcome.

Rejection of Claims 1-4 and 11 under 35 U.S.C. § 103

The Office Action rejects claims 1-4 and 11 under 35 U.S.C. 103(a) as being unpatentable over Kessinger, Jr. et al. (U.S. Patent No. 5,744,896, hereinafter "Kessinger") in view of Heyraud (U.S. Patent No. 5,744,896, hereinafter "Heyraud"). Applicants respectfully traverse the rejection to the extent it is maintained against new independent claims 12 and 13 and claim 4 as amended herein.

As described above, Applicants' invention, as now set forth in new independent claim 12, recites a second coil having longitudinal and circumferential sections disposed at a first

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and a second radial distance from a cylindrical axis, respectively, such that the second radial distance exceeds the first radial distance. Claim 12 also recites a pair of step bends in the second coil where each longitudinal section meets one of the circumferential sections.

Applicants' also disclose the stacking, or layering, of outer coils on inner coils. Applicants' invention, as set forth in new independent claim 13, recites a first and second inner coil each having longitudinal sections disposed at a first radial distance from a cylindrical axis and a first and second outer coil each having longitudinal sections disposed at a second radial distance from the cylindrical axis.

Kessinger teaches a disc type motor having "plate-like" (i.e., flat) coil segments but does not teach or suggest longitudinal and circumferential sections disposed at different radial distances from a cylindrical axis nor does Kessinger teach or suggest pairs of step bends to achieve a radial offset between the longitudinal sections and the circumferential sections of a coil. Although Heyraud describes a general cylindrical arrangement of coils (col. 5, lines 43-52 and FIG. 5), Heyraud does not teach or suggest longitudinal and circumferential sections at different radial distances from a cylindrical axis or the step bends between these sections.

Thus Kessinger and Heyraud, either alone or in combination, fail to teach or suggest every limitation of the Applicants' invention as set forth in new independent claims 12 and, therefore, Applicants respectfully submit that the rejection with respect to new claim 12 is overcome. Neither Kessinger nor Heyraud teaches or suggests the stacking or layering of coils, i.e., the inner coils with longitudinal sections disposed at a first radial distance from the cylindrical axis and the outer coils with longitudinal sections disposed at the second radial distance from the cylindrical axis. Thus Kessinger and Heyraud, either alone or in combination, fail to teach or suggest every limitation of the Applicants' invention as set forth in new independent claim 13. Claim 4 depends directly from patentable independent claim 13, and incorporates all of its limitations, and therefore is also patentably distinguishable over the cited references for at least those reasons provided in connection with new claim 13. Therefore, the Applicants respectfully submit that the rejection against claim 4 is also overcome.

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Rejection of Claims 5-9 under 35 U.S.C. § 103

The Office Action rejects claims 5-9 under 35 U.S.C. 103(a) as being unpatentable over Kessinger in view of Heyraud and further in view of Takahashi et al. (U.S. Patent No. 4,551,645, hereinafter "Takahashi"). Applicants respectfully traverse the rejection to the extent it is maintained claim 5 as amended. The Applicants' invention, as set forth in claim 5 is similar to that of new claim 12 except that a plurality of first coils and a plurality of second coils are recited. Thus the arguments presented with respect to new claim 12 above are reiterated here with full force and effect. Consequently, the Applicants respectfully request that the rejection be withdrawn. Claims 6-9 depend directly or indirectly from patentable independent claim 5, and incorporate all of its limitations, and therefore are also patentably distinguishable over the cited references for at least those reasons provided in connection with claim 5. Therefore, the Applicants respectfully submit that the rejections against claims 6-9 are also withdrawn.

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CONCLUSION

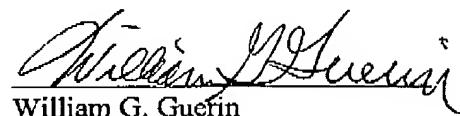
In view of the arguments made herein, Applicants submit that the application is in condition for allowance and request early favorable action by the Examiner.

If the Examiner believes that a telephone conversation with the Applicants' representative would expedite allowance of this application, the Examiner is cordially invited to call the undersigned at (508) 303-2003.

Respectfully submitted,

Date: September 9, 2004
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